#16 The quantified self: Whoopcast (with Steven Elliott)

[00:00:17] **Dara:** Hello and thanks for joining us in The Measure Pod, a podcast for analytics enthusiasts where each week we pick an analytics topic or a challenge or an opinion, we dive in and we try and have a bit of fun along the way. I'm Dara, I'm MD at Measurelab. I'm joined as always by Dan, a Lead Analytics Consultant here at Measurelab. Hey Dan, what's new in the world of analytics?

[00:00:41] **Dan:** Hey Dara, there's two things this week I brought in. The first one is an update in Data Studio, and this is quite a welcome update. One of the quality of life updates that has made things a lot easier to build an edit dashboards actually. They've now released the ability to interact with things like filters and date range pickers in the edit mode without having to go into the view mode and change stuff around. It might seem inconsequential, but it actually saves a lot of time when you're tweaking and editing dashboards. One nice thing about that is if you do change a date range or a drop down filter and go into the view mode, it's sticky, it keeps it. So now you don't have to refresh the data every time you dip in and out of this edit mode. Not a huge, groundbreaking update, but something that's made a lot of people's lives easier.

[00:01:21] **Dara:** I think I said the same last week, these are the best kind of updates. I get more excited about these kinds of time savers than I do about the really big feature announcements.

[00:01:31] **Dan:** Yeah. It's the stuff that really affects us, right.

[00:01:32] **Dara:** Yeah. When you're using these tools day in, day out, these frustrations build up. So anything that can make that process smoother is always going to be music to our ears, isn't it.

[00:01:41] **Dan:** Yeah, for sure. And on a completely different tone, there's a GA4 update where they have changed the user roles for GA4 properties. And this is one of those things that's probably not gonna make any difference to the day-to-day, but might come in handy down the line. And that is they've rejigged to the user roles, so the whole view, collaborate, edit, and then the manager user options we had in universal are now gone. And there are new roles for analysts. There are administrative roles, and they've also got to tick boxes to disable access to revenue and cost data.

[00:02:12] **Dara:** Well, it's interesting cause I've actually had that request more than once in the past where people have asked if you can give access to GA, but without giving revenue access. It might be to a partner or an agency where, for whatever business reason, you don't want to share that with them. And it was never really a good answer before, so, again, this maybe not the biggest news in the world, but I think it is going to be useful for some people.

[00:02:34] **Dan:** Yeah, for sure.

[00:02:35] **Dara:** All right, that's the news. This week again, we are joined by a special guest who is Steve Elliot, who is one of the Measurelab family. He's our Commercial Director. So Steve, what does a Commercial Director actually do?

[00:02:52] **Steve:** Dara, hi Dan. So yeah, a Commercial Director, at least my interpretation of the role involves looking at the commercial side of agreements with our clients and getting involved generally with business development. So sales and marketing, and that extends into the development of the Measurelab brand and proposition. How we go to market, and then thinking about broader things like growth strategy. So we scale and systemize the business.

[00:03:22] **Dan:** Steve, it's great to have you on the podcast. So what have you come in to talk to us about this week?

[00:03:27] **Steve:** So firstly, I'm a big fan of the podcast. I don't profess to be an expert in Google Analytics or Google BigQuery, Tag Manager, Data Studio. So my specialist subject Dan, is self quantification.

[00:03:45] **Dan:** You remembered all the names, so that's a good start um, what is, uh, what self quantification, what we're talking about?

[00:03:52] **Dara:** Sounds painful.

[00:03:54] **Steve:** So, um, so self convocation, I guess there's, if you look at your phones there's any number of sensors and other gadgets that collect various data about yourself. And I suppose self quantification is just using that data to measure certain things. In my case, you could describe it as bodily functions, but I probably prefer the term and biometric markers. If you think about something like a Fitbit, you might measure the number of steps that you take each day. There's tools like Strava, where you might measure the distance you cover running or on a bike. And then you get into the sort of more biometric things like your heart rate, respiration rate, blood oxygen levels, blood glucose levels, all sorts of things like that, that you can track and measure. And I guess I've just got into it over the years and now I really geek out on that sort of stuff.

[00:04:48] **Dan:** That's really, really fascinating. I've dabbled, I've logged my heart rate or maybe the occasional time I weigh myself on my phone and it gets logged, but in no consistent or regular way to make any sense of it. So what are you using, how are you doing all this? There must be some tech here. This isn't just a spreadsheet trying to figure all this stuff out, right?

[00:05:05] **Steve:** Well it started, it actually started for me around exercise. So I suppose that was the driver for me, and it started with using gadgets like a Garmin and Strava on my phone to measure sort of distance and pace when I was out cycling. I know Dara's a keen runner and uses a similar tool set for measuring his runs. Then more recently, I suppose I started listening to podcasts, reading blogs around how you can begin to optimize performance. And that sounds very grand term in terms of the way I approach exercise, but really then got into measuring things like heart rate and heart rate variability and things like that. And seeing how, if at all it affects my performance when I'm riding the bike. so the tool, the particular gadget that I use it's a band and that you put on your wrist, it's called WHOOP with, I dunno if it's got an exclamation mark, like Yahoo, but it probably should do. Um, so I wear one of those 24 7, it even charges on your wrist and it sort of tracks all those things and to quite granular detail.

[00:06:16] **Dara:** It's the difference isn't it, and that's what I found Steve. Cause I'm, as you know, also a WHOOP user WHOOP exclamation mark user. But the difference or what it adds, I guess, and I know some of the Garmin watches do this too, but with WHOOP, you are wearing it 24 7. So what I used to get before was just data around my activities, which is just kind of one piece of the picture. And with WHOOP, you get in that 24 7 data and it tracks your sleep and then gives you a recovery score every day. So you can then base, or at least in theory, but I know I don't always listen to it, but it will maybe suggest that you have an easier day or a suggest that actually you could take on more strain.

[00:06:57] **Steve:** Yeah, that's the thing it's sort of goes from being an occasional measurement, to the 24 7 measurement. The key there is measuring your recovery to the same degree that you're measuring the actual exercise or the activities that you do.

[00:07:12] **Dara:** So have you used the data to actually change your behaviors in any way, and then the second part to that question is have you then used it to analyze and interpret the effect of those changed behaviors?

[00:07:25] **Steve:** Erm yes and no. I actually found it as a training tool, it hasn't been hugely useful. What I find very interesting is every morning you complete a short survey when you record, whether you've, for example, what you've eaten meat, drink alcohol, whether you've drank enough water, whether you've taken supplements, Legal supplements I should, then I should emphasize. And then over time is it sort of builds up a picture of the data, the app actually tells you how those different variables have had an effect on your recovery and on your sleep. And so where it has changed my behavior is in thinking about how much sleep I get full stop. So I've become slightly obsessed with making sure I get adequate sleep. But it's also affected one of the big things that makes a difference for me is consuming alcohol. So it's actually made a difference to the frequency with which I drink and the amount I drink when I do.

[00:08:32] **Dan:** You're going to have to throw some numbers at us Steve. What is good sleep, what does that mean, what does that look like for you? And what kind of effects do you see when you have maybe two drinks or 10 drinks? Like, how does that change, how does that change you and your biometric markers?

[00:08:46] **Steve:** Well the thing is let's take alcohol as an example. So, you can track not just how much you've had to drink, but actually the time of your last drink. Generally I find if I have sort of one or two drinks and it's around three, four hours before I go to bed, then it makes next to no difference to my sleep and my recovery. But if I'm having more of a session, if I'm having a few drinks and it goes late, then what you see is that you may sleep a similar length of time, but your body's ability to recover during that sleep is severely diminished. And the way that's expressed is through this, as Dara said, through this idea of a recovery score. It gives you a score on a percentage of your recovery. 33% or less is a red recovery. 33 to 66% would be a sort of Amber or yellow recovery. And 66% or above gives you a green. Three, four drinks after seven or eight o'clock is almost certain to take you down into Amber territory. Any more than that and you're going to be looking at a red recovery, which is basically your body telling you you've been really naughty and shouldn't be doing any serious exercise the following day.

[00:09:58] **Dan:** So w what is the record? Both of you have the WHOOP band. So what are we fighting for the highest or the lowest recovery? There must be some level of competition, sorry camaraderie, going on here if you guys are sharing this with each other.

[00:10:10] **Steve:** So it's not just the two of us. There's a third WHOOPER in the company and that's Mark. And between us, I think, particularly Mark managed to sort of invert the competition. Mark's actually managed to make the competition be about who can get the lowest score. And at the point of which he managed to record a 1%, he actually declared he'd won the game, um, and was, and was retiring until the next version of the game came out. I think that's been the lowest slash best score that's been recorded. I think Dara, did you equal that at some point as well?

[00:10:47] **Dara:** I did. Yeah, I got a 1% as well. And it's exactly for the reasons that you mentioned, it's drinking close to bedtime, and drinking alcohol in to greater quantity. And it really does affect the sleep quality. It's interesting cause you bounce back really quickly from that. I'd have to check, but I think the day after I had my wound present, I was probably back if not in the green, pretty close to it. So it's that real short-lived but very drastic effect if you consume too much alcohol and it terrifies you the next day.

[00:11:21] **Dan:** otherwise known as a hangover, right?

[00:11:23] **Dara:** this is a hangover in digital form. It's digital proof of your hangover.

[00:11:30] **Dan:** Just a quick silly question then. What is a recovery score? What are these numbers and how does that work? I mean, this is a device that sits on your wrist, 24 7 right? Like a little watch. How does that know how hung over you're going to be the next day? How does that work?

[00:11:43] **Steve:** So first of all, it tracks your heart rate, so it sees as your heart rate dips. And it has an accelerometer in it so you can sense when you stop moving. So it has an idea of when you're actually going to sleep. The first thing it takes into account is actually the length of sleep you've had. But then it's also looking at your heart rate and I've been quite stunned at the extent to which your heart rate increases. And it's not just for alcohol, for me if I eat late and I'm digesting food, my heart rate will be raised. And then the really clever thing that it does, and I suppose what's innovative with the WHOOP over other devices, is it measures something called heart rate variability, which is the very tiny differences between each individual heartbeat. So somewhat, I think counterintuitively, very high variability indicates that your body is in a good state, that your nervous system is doing it's job and your recovering repairing well, your body's in a good state. A low variability, so actually that's why your heartbeat is very steady, indicates that your body is focused entirely on effectively mending the damage that you've done to it, either through exercise, through alcohol, through eating too much, whatever you've done to get the wrong side of it.

[00:13:07] **Dan:** I wonder how they came up with that from heart rate. I take it that's to do with the survey you do every morning right? So it must have some model behind the scenes aggregating all of the users data, trying to find correlation or causation between survey responses and variability in the data sets?

[00:13:25] **Steve:** Yeah, that's exactly it. You need to track that behavior for a period of time before there's sufficient data within the model for it to be reliable. So it actually takes a while before it starts to present that sort of initial analysis back to you on which variables drive recovery or lack of recovery for you as an indevidual.

[00:13:47] **Dara:** And that last point you made about it being an individual, that's the key point because Dan you were saying is it using aggregated data. It's not based on other people's data at all. So the HRV measure for example, and this is not unique to this device, it's a scientific measure, it's different for different individuals. And if, uh, Steve had a higher HRV than me, for example, that doesn't necessarily mean it's better. It's in relation to yourself. So you want your individual heart rate variability to increase over time, as opposed to it necessarily increasing versus somebody else.

[00:14:22] **Dan:** Okay. So is a slightly, slightly left field question then. How much goes through your mind around sharing this level of data, this volume of data, this level of personal biometric data with a third party. But you're sharing quite a lot of quite literally personal data with a company that's using some way to kind of make that useful for you, sure. But is that a consideration that you went through, is that something you think about? I just want to get your feel on the level where, you know, someone like me, I share my fingerprint to unlock my phone. But having something perpetually on me tracking my either location or heart rate and the things that I'm up to, where I'm going. That's not a line I've crossed yet, maybe it's not something I would ever cross. I haven't really considered it too much. So how did you to that point?

[00:15:01] **Steve:** Or maybe it's not a line you've crossed knowingly, but I think he might be surprised to learn how much about you, your phone is tracking, things like location, steps anyway. Um, I think another point is, regardless of sharing the data with a company. Mark, Dara and myself have formed a small club within the app, and actually share our recovery scores with each other. So I've actually now one of the first things I look at in the morning, I'll go to look at my own recovery score, but then I can see Mark and Dara and see if they've had a good night's sleep, and I really have a genuine chuckle when I say when I see a low score, particularly if I know they've been out with the, on a Measurelab social.

[00:15:52] **Dan:** Does this affect how you book meetings with them for the next day then? You just need to come to find out how far can you push mark or Dara today?

[00:16:00] **Steve:** Yeah, yeah. Earlier the better, as soon as I see it's in the red. And then to answer your other question about sort of giving up or consenting to the company processing that data. I suppose it's like anything it's a value exchange. I personally feel I get immense value from the data, from the algorithms that they run, the visualizations that they give me and how they process that data. I get a lot of value from it, so it's an exchange that I'm willing to make. And I suppose, I don't spend a lot of time personally dwelling on how they might put that data to nefarious uses.

[00:16:37] **Dara:** I think I feel the same way. I know what I'm signing up to. I use the data and I don't just use what's provided back to me through the app or through the interface. I do my own geekery, overlaying it onto the data I get from my Garmin, from my running activities. And I have all of this in a spreadsheet as well. So I know what I'm signing up to. I know I'm giving away some of that data, but I'm getting a, I'm getting a service in return. So I'm personally happy with that, with that value exchange.

[00:17:08] **Dan:** I think this is really interesting because I completely get that it's an exchange of goods and the currency happens to be data. It is just modern currency right. We think of it as kind of nefarious or bad when we don't realize that that exchange is happening. I wonder if there's like a type of person that this really applies to. All of us here where we, you know, we're, this is an analytics podcast, we're in the analytics space. And there's a type of person just as you were saying Dara, that collects this kind of data in a spreadsheet, that wants to play with it. That wants to track it, wants to use this to inform something. I'm just wondering if there's a type of person that I kind of more data savvy or analytics mindset where this is going to be more valuable. I wonder if they are our folk, as it were.

[00:17:49] **Steve:** I see it a lot with people that have a slightly, I'm going to say obsessive nature. So there's a lot of that type of person gets into cycling because it's such a measurable sport. So you can measure the distance you've cycled, your average speed, and there's a lot about it that you can measure. And to a degree control in a way that you don't have control over say sports like football or tennis or golf. The effort that you put into those sports, you don't necessarily get back, whereas with running and cycling and certain sports like that, you see that return on your efforts. And so I think people that get into those sports, part of the appeal is seeing incremental improvements and being able to measure those improvements. So I think it's that sort of mindset of people who are maybe a little, a little controlling, a little obsessive, I think are going to say the appeal in this.

[00:18:58] **Dara:** Yeah and I think you're right about the sports people, I think especially these days there's so much focus on sports science. Even on an amateur level, if you're really into a sport where it is heavily determined by the data and the, whether it's power output or whether it's pace or whether it's heart rate, when there's devices and tech, that can track that. There's very few people, if you're that interested in the sport, that aren't going to want to have that data to pour over it and try and figure out what they can tweak. And even if it is thinking I'd better go to bed 20 minutes earlier so I get a better recovery score, and I can go out and push it harder tomorrow. You're right, it is that kind of slight obsessiveness that comes maybe with being quite into endurance sports, and that kind of analytical mindset as well, because you're trying to take a baseline and improve on it and you need the data to do that.

[00:19:49] **Steve:** I think it, it actually sort of like a lot of the time when you're, if you're running or cycling, you're not necessarily enjoying it in the moment. A lot of it's about suffering, and actually getting home and analyzing the data from the activity can actually sometimes be the most enjoyable part of it. Once you've got your feet up, it sort of extends the activity in a way. It becomes part of the experience is to pour over the data and see how you performed and where you've broken personal records, where you've fallen short. It's all, it's all part of the game I think these days.

[00:20:27] **Dara:** I think I would suspect you're the same as me in this respect Steve, but there's something about having the tech and looking at the data and sitting there when you've come back from your cycle or your run, that you almost start to convince yourself you're a professional sports person and that you're seeking all these marginal gains.

[00:20:45] **Steve:** Yeah, I think it's a way that you can feel more pro without being remotely professional.

[00:20:50] **Dan:** I wonder how much being able to measure these activities makes it worthwhile full stop. There's a certain type of sports that you get into because you can measure them, you can get personal bests. If I don't have a spreadsheet at the end of it, if I don't get to beat something of my own or a record, would I even do it in the first place?

[00:21:07] **Steve:** Yeah, I think there's no question that just tracking, being conscious of something makes you do it more. So being aware of how many steps you do in each day, you're more likely to walk more. And then once you start thinking, okay, I want to set targets then that no question that that motivates and changes the behavior. And that's something as simple as steps. So I think with runners, cyclists, they generally sort of take these things to another level.

[00:21:35] **Dara:** For me the two aspects are separate, but they combine to make the whole activity of running for me even better than it would be without either if that makes sense. So for me, there's the kind of performance monitoring and the kind of optimization and the progress tracking and that taps into my kind of analytical and yeah, maybe slightly obsessive side. But then I also get joy from the activity itself. For me running is about, it can be a great way to clear my head or to sift through thoughts. It can also be quite a grounding activity. So often if I'm out, especially if I'm out somewhere in nature, it can kind of put my problems into perspective. What I find is the two combined make it really amazing, cause it basically gets to serve two distinct and very important purposes in my life.

[00:22:26] **Steve:** I think that's really nicely put, it's the escape from data on the one hand, but then sort of complete absorption and indulgence with data on the other. So it's a nice combination for you.

[00:22:42] **Dan:** It's really interesting the parallels I'm drawing with digital analytics, digital marketing, all of the things that we do in our day to day. The idea of measuring data for data's sake, and then having some kind of metrics that you're trying to optimize and tweaking and testing things within yourself or within, you know, whether that be in a marketing campaign or whether that be in yourself and your diet and your consumption of alcohol, whatever that looks like. And how to optimize performance, how to optimize your wellbeing. I think it's, I think it's really fascinating that correlation that there is between the two. And I think this is why I, you know, this is why we really wanted to discuss the other podcast is because there is that idea that data is data and optimization is optimization, whether that is for marketing campaigns or through biometrics, that you're collecting through a magic device on your wrist

[00:23:29] **Steve:** Yeah, I think the parallels to me are absolutely there. To begin with you put one of these things on your wrist, you just start tracking. And you collecting data and it actually doesn't have any meaning initially, you've no real sort of context or understanding is this good, is this bad. And then over time you begin to establish your own baseline or you benchmark against others like Mark and Dara, and begin to sort of compare and understand what's good and bad in general. What's good and bad for me. And then over time you begin to see the patterns emerge and you begin to find sort of a narrative to explain what's changing. You begin to understand cause and effect, and what the leavers are that you can turn to engineer it. And then I suppose the last or then the next step then is actually sort of setting targets, setting goals of where you wanted to get to running experiments. Like what happens if I stop drinking alcohol for a week, or does it make any difference if I take magnesium or CBD oil before sleeping. And those experiments can be really interesting, seeing the extent to which you can move the numbers in a positive direction.

[00:24:48] **Dara:** Well, I think that sums it up nicely. Steve as an avid listener of the podcast, you know what this means now. We're at the point where we talk about what things we've been doing outside of work to unwind. So I'm going to put you on the spot first and let you answer this question.

[00:25:05] **Steve:** Very predictably, I participated in my last sort of big event of the season at the weekend. So I rode with my brother who I typically ride with. We wrode in the Essex season ender, so I was over in Ilford, and riding a hundred miles or so under blue skies. My last run of the season, last ride probably for awhile with my brother who's moving to the U.S. in a month or so. A nice chance to sort of have one last ride with him.

[00:25:38] **Dara:** The last hurrah. How about you Dan, what have you been up to?

[00:25:41] **Dan:** At the time of recording, we are a couple of days passed bonfire night. And in Lewes that is a huge event. To a point where in previous years, the population grows to about 80,000. And we've got seven, I believe bonfire scientists that hold their own fireworks displays, bonfires, and they have multiple precessions walking around town. Me and my wife went around just absorbing ourselves in the craziness. It was wicked to go out considering it was canceled last year, it was two years in the making. So a really fun time.

[00:26:12] **Steve:** Dara, I know how this works. What fun stuff have you been getting into this last week?

[00:26:17] **Dara:** Well, I'm not sure it meets everyone's definition of fun, but I've been out mushroom foraging.

[00:26:23] **Dan:** what kind of mushrooms?

[00:26:24] **Dara:** Uh, the safe edible type. Blewits and Puffballs mainly. But yeah, that's, that's the most, the most interesting thing I've done in the last week. Okay. That's us for this week. As ever, you can find out more about us over at measurelab.co.uk. Get in touch via email at podcast@measurelab.co.uk or just look us up on LinkedIn if you have any questions or if you want to suggest a topic, or even come on the show and discuss that topic with us. Join us next time for more analytics chit-chat, I've been Dara joined by Dan and Steve. So it's bye for me.

[00:27:02] **Dan:** And bye from me.

[00:27:02] **Steve:** And bye from me.

[00:27:04] **Dara:** See you next time.

[00:27:22] **Dara:** No can't do that, my mum might